

\_\_\_\_\_

Thursday, April 07, 2011 12:51:13 PM



**Stop**

[illegible][illegible]

**Required Date:** 4/12/2011      **Req'd Qty:** 20.00

**Customer:**

**Reference:**

Run Start

[illegible]

### Tooling:

**Date:**



**Stop**

**0**

Date:

**SPC (Y/N):**

**Date:**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D6101	Rev B								
100  Purchasing Purchasing	PURCHASING  <b>Memo</b> Issue P/O: <u>13827</u> a)Description: Alluminum billet b) 6.00" x 6.250" x 2.00" thick c) Tolerance on length are +0.030"/-0.000" /E+/-0.008" d) Grain direction along 6.00" length e) Material: 7075-T7351 (QQ-A-250/12) f)Material certification required	0.00  0.00							<u>CL</u> <u>11/04/07</u> <u>20</u>
110  Packaging Packaging	Receive & Inspect for Damage & Mat'l Certs  <b>Memo</b> Ensure material certification is attached	0.00  0.00							<u>P</u> <u>11/4/11</u> <u>(20)</u>

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			






**NOTE:** Date & initial all entries



# Work Order ID 68170




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Item ID: D6101-001 Accept  Setup Start   
Revision ID: Stop   
Item Name: Saddle Billet  
Start Date: 4/7/2011 Start Qty: 20.00  Cust Item ID:  
Required Date: 4/12/2011 Req'd Qty: 20.00  Customer:

Reference:  
Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC6- Inspect dimensions to drawing  Memo Ensure Material certification comply to Dwg D	0.00  0.00		<i>mf 11/04/12</i>		<i>21</i> <i>mf</i>	<i>1</i>		
130  Packaging Packaging	Identify as per dwg & Stock Location: <i>MAT</i>  Memo	0.00  0.00				<i>mf 11-04-12</i>			
140  QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							<i>11/4/13</i> <i>mf</i> <i>11-04-12</i>

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, April 07, 2011 12:51:10 PM

Page 1

Work Order ID: 68170



Parent Item: D6101-001



Parent Item Name: Saddle Billet



Start Date: 4/7/2011

Required Date: 4/12/2011

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP B: ☐01.05.04☐New Issue☐EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-001P  7075-T7351 2X6X6.25		Purchased	No			110	Each	0.0000	1 	20		<i>P. 4/7/11 (2)</i>	

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

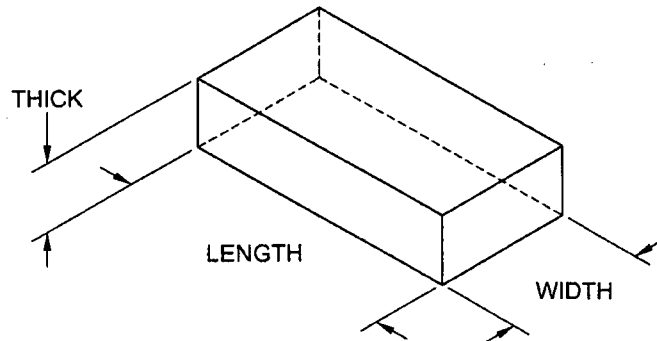
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

**B** ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

**RELEASED**  
09/07/15/W

CL 11/04/07  
W10.68170

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV..	DESCRIPTION	BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. <b>D6101</b> REV. B	
MFG. APPR.	<i>[Signature]</i>	SHEET 1 OF 1	
APPROVED	<i>[Signature]</i>	TITLE <b>SADDLE BILLET, 7075</b> SCALE NTS	
DE APPR.	<i>[Signature]</i>	COPYRIGHT © 2001 BY DART AEROSPACE LTD	
DATE	<b>09.04.23</b>	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO13827

Purchase Order Date 4/7/2011

PO Print Date 4/7/2011

Page Number 1 of 2

Order From : VC-MET001  
METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	514 694 9575	Requisition Nbr	
Vendor Fax	514 695 3281	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

FAKED  
4/11/04/07

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D6101-001P	7075-T7351 2X6X6.25	4/12/2011 Yes	20.00 Each	TST ground	\$45.1000	\$902.00
		Special Inst: AS PER DWG D6101 REV. B B68170 MATERIAL: 7075-T7351 AS PER QQ-A- 250/12 SIZE: 6.00" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 6.00" LENGTH TOLERANCE ON LENGTH ARE +0.030"/- 0.000"					
2	D6101-003P	7075-T7351 2X6.25X7.875	4/12/2011 Yes	20.00 Each	TST ground	\$59.1600	\$1,183.20
		Special Inst: AS PER DWG D6101 REV. B B68171 MATERIAL: 7075-T7351 AS PER QQ-A- 250/12 SIZE: 7.875" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 7.875" LENGTH TOLERANCE ON ALL DIMENSION ARE +0.030"/-0.000"					

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 4/7/2011





A. M. Castle &amp; Co.

## PACKING SLIP

Page 1 of 1

Shipment No:761622

<b>Ship From:</b> Castle Metals MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 08-APR-11	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid		<b>Carrier</b> MANITOULIN		<b>BOL No</b> 761622-2	

<b>Shipment Details</b>	<b>Final Destination Branch - MON</b>
-------------------------	---------------------------------------

<b>Order No</b> 1328641	<b>Line No</b> 1	<b>Item No</b> 752237.MO	<b>Description</b> 2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 6.25 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) X 6 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12				
<b>Purchase Order No</b> PER RELEASE 13827		<b>Part Number</b> YOUR ITEM NUMBER: D6101-001		<b>Ordered Qty</b> 20 PCS		<b>Invoice Qty</b> 20 PCS	
<b>Details</b>		ATTN MONTREAL: HOLD FOR RELEASE					
<b>Delivery No.</b> 73020310	<b>Mill</b>	<b>Heat Number</b> 506772A3	<b>Mech Id</b>	<b>PCS</b> 20	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty (LBS)</b> 154.83

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.							
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.							
Reviewed by Authorized Castle Metals Representative:			Date:				

*CRK 11/04/12*

**KAISER  
ALUMINUM**

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

**CERTIFIED TEST REPORT**

Serial Number

4193016

**ALLOY LIMITS**

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

**Aluminum Remainder****TEST NOTES**

7075-T7351 plate 3.501-4.000" thick, if  
ultrasonically inspected, meets requirements of CMMP025 per  
SDR CMMP025-KaiserT-3. 7075-T7351 plate 4.001-5.000" thick,  
if ultrasonically inspected, meets requirements of CMMP025  
per  
SDR CMMP025-KaiserT-2.

Metal represented by this test report was immersion  
ultrasonically tested from one side and meets the Class A  
and Class B requirements of all specifications referenced  
on this test report.

**Castle Metals FP**

HEAT NUMBER 506772 A 3  
MECHANICAL ID \_\_\_\_\_  
ITEM CODE 6857  
LOT NUMBER \_\_\_\_\_  
PO NUMBER 45811  
RECEIPT DATE 5-11-2010  
SUPPLIER KAISER  
SPECIFICATION \_\_\_\_\_  
LCS NO  
COMMENT \_\_\_\_\_  
APPROVED BL

*CMF*  
*11/10/12*

**CERTIFICATION**

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER DFARS 225.872-1(a), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF DFARS 252.225 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTIRE ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW, ISO-9001:2000 CERTIFIED.

**BILL POYNOR, LABORATORIES SUPERVISOR**

*Bill Poynor*

SHIP TO: A M CASTLE & CO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131
SOLD TO: AM CASTLE & CO- SOLD TO 3400 NO. WOLF ROAD FRANKLIN PARK, IL 60131

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4193016

CUSTOMER PO NUMBER: 45811	WORK PACKAGE:	CUSTOMER PART NUMBER: 6857 AMC A97075-160	SHIP RUN/LOAD: 101791/19	GOV'T CONTRACT NUMBER:		
KAISER ORDER NO: 1096361	LINE ITEM: 1	SHIP DATE: 7-MAY-2010	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: Sawed Plate
WEIGHT SHIPPED: 8224 LB	QUANTITY: 6 PCS EST.	B/L NUMBER: 2027222	GAUGE: 2.0000 IN	DIAMETER/WIDTH: 48.500 IN	LENGTH: 144.500 IN	

### Certified Specifications

AMS 4078/RevG  
ASTM B 209/Rev07  
BSS 7055/RevA  
DPS 4.713/RevAH  
MMS 159/RevN

AMS-QQ-A-250/12  
ASTM B 594/Rev06  
CMMP 025/RevS  
GAMPS 9101/RevB  
PS 21211/RevK

AMS-STD-2154  
BAC 5439/RevH  
CSTI 006/RevC  
GSS16100/RevG/Amd1

Test Code: 4297

### Test Results

Lot: 506772A3 Cast 314

Drop 04

Ingot 2

(ASTM E8/B557)  
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	72.5 : 72.6 (500 : 501)	61.3 : 61.8 (423 : 426)	12.5 : 13.3

(ASTM E1004)  
(EN 2004-1)

Conductivity %IACS :	41.3 Min	41.9 Max
(MS/M) :	24.0 Min	24.3 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.09	0.17	1.4	0.04	2.4	0.20	5.5	0.04	0.01	0.01	TOT 0.05

*Handwritten signature*

